

## PART I - ADMINISTRATIVE

### Section 1. General administrative information

<b>Title of project</b> Grande Ronde Model Watershed Program	
<b>BPA project number</b>	9202601 (includes 9402700)
<b>Contract renewal date (mm/yyyy)</b>	10/1999
<b>Multiple actions? (indicate Yes or No)</b>	No
<b>Business name of agency, institution or organization requesting funding</b> Grande Ronde Model Watershed Program	
<b>Business acronym (if appropriate)</b>	GRMWP
<b>Proposal contact person or principal investigator:</b>	
<b>Name</b>	Tom Macy / Lyle Kuchenbecker
<b>Mailing address</b>	10901 Island Avenue
<b>City, ST Zip</b>	La Grande, OR 97850
<b>Phone</b>	(541) 962-6590
<b>Fax</b>	(541) 962-6593
<b>Email address</b>	macyt@eou.edu / kuchenl@eou.edu
<b>NPPC Program Measure Number(s) which this project addresses</b> 7.0(7.0B.1, 7.6, 7.6C, 7.6D, 7.7B.2-3, 7.8A.4-5)	
<b>FWS/NMFS Biological Opinion Number(s) which this project addresses</b> N/A	
<b>Other planning document references</b>  National Marine Fisheries Service, Snake River Salmon Recovery Plan, 1995, U.S. Dept. of Commerce, National Oceanic & Atmospheric Admin., Washington DC, Tasks 1.1.b, 1.4.b, 1.4.d, 1.5.b, and 1.6.b. Columbia River Basin Fish and Wildlife Program, Sections 7.6D and 7.7. Stream and Riparian Conditions in the Grande Ronde Basin, Section 9.2.2. Grande Ronde Model Watershed Program Operations-Action Plan, Appendix A and B. Wallowa County - Nez Perce Tribe Salmon Habitat Recovery Plan 1993. Grande Ronde Ecosystem Diagnosis and Treatment Project, 1997. Wallowa-Whitman National Forest Plan and current Watershed Analyses. Oregon Plan Supplement on Steelhead, 1997. Other agency documents as applicable to the Grande Ronde Basin: federal - NRCS, EPA, BOR, BLM; state - DEQ, DSL, ODFW, OWRD, ODA, ODF; Tribal - CTUIR	

(all support the GRMWP concepts and strategies)
Short description <b>Continuation of the Grande Ronde Model Watershed Program to coordinate, plan and implement salmonid habitat restoration projects.</b>
Target species <b>Snake River spring chinook salmon - summer steelhead - bull trout</b>

## Section 2. Sorting and evaluation

Subbasin <b>Grande Ronde &amp; Imnaha</b>
--

### *Evaluation Process Sort*

CBFWA caucus		CBFWA eval. process		ISRP project type	
X one or more caucus		If your project fits either of these processes, X one or both		X one or more categories	
X	Anadromous fish		Multi-year (milestone-based evaluation)	X	Watershed councils/model watersheds
X	Resident Fish	X	Watershed project eval.	X	Information dissemination
	Wildlife				Operation & maintenance
					New construction
					Research & monitoring
				X	Implementation & mgmt
					Wildlife habitat acquisitions

## Section 3. Relationships to other Bonneville projects

***Umbrella / sub-proposal relationships.*** List umbrella project first.

Project #	Project title/description

### ***Other dependent or critically-related projects***

Project #	Project title/description	Nature of relationship
9403000	RASP in the Grande Ronde Basin	Grande Ronde Ecosystem Diagnosis and Treatment Project (GREDT) provides a science-based methodology for habitat restoration planning and implementation.
9403900	Wallowa Basin Project	Provides for technical support and coordination from the Nez Perce Tribe.
9702500	Wallowa County/Nez Perce Salmon Habitat Recovery Plan Implementation	Support Nez Perce Tribe implementation of the Wallowa County-Nez Perce Tribe Salmon Habitat Recovery Plan.
9703100	Meadow Creek Instream Structure and Riparian Evaluation	Intensive habitat restoration monitoring.

9202604	Spring Chinook Early Life History	Provides critical life-history information to focus restoration efforts in the Grande Ronde Basin.
8402500	Joseph Creek, Grande Ronde River, Oregon (ODFW)	Partnership with Oregon Dept. of Fish and Wildlife. ODFW representatives serve on the GRMWP Technical Committee and the Board of Directors.

## Section 4. Objectives, tasks and schedules

### *Past accomplishments*

<b>Year</b>	<b>Accomplishment</b>	<b>Met biological objectives?</b>
1993	<b>Wallowa County-Nez Perce Tribe Salmon Habitat Recovery Plan</b>	N/A - planning document
1994	<b>Stream &amp; Riparian Conditions in the Grande Ronde Basin</b>	N/A - planning document
1994	<b>Grande Ronde Model Watershed Program Operations-Action Plan</b>	N/A - planning document
1997	<b>Grande Ronde Basin Water Quality Monitoring</b>	N/A - planning document
1997	<b>Application of Ecosystem Diagnosis &amp; Treatment Method to the Grande Ronde Model Watershed Project</b>	N/A - planning document
1994-1998	<b>244 miles of fencing (riparian &amp; cross fencing)</b>	-Provide for natural recovery through natural successional processes -Enhance riparian condition -Restore hydraulic & sediment regimes -Improve floodplain function -Improve streambank stability -Improve upland watershed conditions -Improve water quality for salmonid production and survival
1994-1998	<b>182 miles of road closures/obliteration</b>	-Reduce sediment input to streams
1994-1998	<b>107 miles of road improvements for sediment reduction</b>	-Reduce sediment input to streams
1994-1998	<b>107 miles of stream treated with instream work (includes 398 structures)</b>	-Improve in-stream conditions for salmonid spawning and rearing -Increase habitat diversity
1994-1998	<b>142 off-stream livestock water developments</b>	-Enhance riparian condition -Restore hydraulic & sediment regimes -Improve floodplain function -Improve streambank stability -Improve upland watershed conditions
1994-1998	<b>28 fish passage improvement projects</b>	-Improve passage for adult/juvenile salmonids -Provide access to more and better habitat
1994-1998	<b>13 irrigation diversion improvement projects</b>	-Improve passage for adult/juvenile salmonids -Reduce irrigation water withdrawals and

		increase in-stream flows -Reduce or eliminate salmonid mortality at diversion sites

### **Objectives and tasks**

These objectives and tasks address habitat deficiencies identified in the technical document:

Mobrand, L. and L. Lestelle. January 1997. Application of the Ecosystem Diagnosis and Treatment Method to the Grande Ronde Model Watershed Project. Mobrand Biometrics, Vashon Island, WA. BPA #94AM33243

Habitat deficiencies are described by stream system in Section 7.a. of this document. Tasks are specifically identified by subbasin according to the following key:

**UGR** - Upper Grande Ronde River (Grande Ronde River upstream of La Grande, including tribs)

**MGR** - Middle Grande Ronde River (La Grande to Elgin, Grande Ronde Valley, including tribs)

**LGR** - Lower Grande Ronde River (Elgin to mouth, including tributaries)

**CC** - Catherine Creek (including tributaries)

**JC** - Joseph Creek (including tributaries)

**WR** - Wallowa River (including tributaries)

**LR** - Lostine River (including tributaries)

**BC** - Bear Creek (including tributaries)

**IR** - Imnaha River (including tributaries)

<b>Obj 1,2,3</b>	<b>Objective</b>	<b>Task a,b,c</b>	<b>Task</b>
<b>1</b>	<b>Coordinate program administration and habitat restoration projects. \$80K</b>	a	Facilitate inter-agency coordination of program activities and projects with natural resource management agencies.
		b	Coordinate planning, prioritization and implementation of restoration projects.
		c	Provide technical support for projects.
		d	Monitor cumulative effects.
		e	Serve as a clearing house for restoration information dissemination.
		f	Provide educational outreach for watershed restoration.
<b>2</b>	<b>Improve passage at road crossings for adult and juvenile salmonids. \$95K</b>	a	UGR - Replace/modify 3 inadequate culverts
		b	MGR - Reconstruct 1 bridge
		c	CC - Modify 2 culvert road crossings
		d	WR - Replace 3 inadequate crossings
<b>3</b>	<b>Improve passage at irrigation diversions for adult and juvenile salmonids. \$85K</b>	a	MGR - Modify 1 irrigation diversion structure on the Grande Ronde River - Modify 2 irrigation diversion structures tribs.
		b	CC – Replace 1 push-up gravel irrigation

Obj 1,2,3	Objective	Task a,b,c	Task
			diversion.
4	<b>Improve in-stream habitat diversity for salmonid spawning and rearing</b>  <b>\$90K</b>	a	UGR – Large woody additions to the GR River and tribs. (2 mi.) - Rock and log structure placements to same streams (2 mi.) - Install 5 grade control structures
		b	CC - Large wood additions to 1 mi. tribs. - Construct off-channel rearing habitat (.5 mi.)
		c	WR - Install 5 grade control structures - Reconstruct channel meanders (.5 mi.)
5	<b>Enhance riparian condition (vegetation, function, etc) to restore and improve natural hydraulic and sediment regimes, floodplain and stream channel function</b>  <b>\$225K</b>	a	UGR - Construct 1.5 mi. of riparian fencing. -Wet meadow restoration (35 ac.) - Develop 7 off-stream water sources - Close/obliterate 2 mi. of sediment producing roads - Plant 4000 feet of streambank - Noxious weed control on 75 acres
		b	MGR -Construct 2 mi. of riparian fencing - Develop 5 off-stream water sources -Wet meadow restoration (15 ac.)
		c	LGR - Construct 2 mi. of riparian fencing - Develop 6 off-stream water sources
		d	CC - Construct 5 mi. of riparian fencing - Develop 6 off-stream water sources -Wet meadow restoration (25 ac.) - Plant 2500 feet of streambank
		e	JC - Construct 3.5 mi. of riparian fencing - Develop 6 off-stream water sources
		f	WR – Construct 2 mi. of riparian fencing - Plant 1000 feet of streambank -Wet meadow restoration (30 ac.)
		g	IR - Construct 6 mi. of riparian fencing
6	<b>Improve streambank stability to reduce stream channel sedimentation</b>  <b>\$105K</b>	a	UGR - Construct 15 barb/log revetment stabilization structures in the Grande Ronde River - Construct 5 grade control vortex weirs in the Grande Ronde River - Revegetate 8000 feet of streambank on the Grande Ronde River and tribs. - Construct 1.5 mi. of riparian fencing - Develop 6 off-stream water sources
		b	MGR - Revegetate 6000 feet of streambank on the Grande Ronde River and tribs. - Construct 1.5 mi.of riparian fencing - Develop 5 off-stream water sources
		c	CC - Revegetate .5 mi. of streambank on

Obj 1,2,3	Objective	Task a,b,c	Task
			mainstem Catherine Creek and tribs. - Construct 1.5 mi. feet of riparian fencing
		d	WR - Construct 10 barb/log revetment stabilization structures on Wallowa River and tribs.
7	<b>Improve upland watershed conditions to reduce sediment inputs to stream courses</b> <b>\$140K</b>	a	UGR - Noxious weed treatment on 100 acres - Seeding on 100 acres -Construct 2 mi. of pasture fencing -Tree density manipulation (250 ac.)
		b	MGR- Noxious weed treatment on 250 ac. - Seeding on 250 acres - Construct 1 mi. pasture fencing
		c	-LGR - Noxious weed treatment (300 ac.) -Seeding (300 ac.)
		d	CC - Construct 2 mi. pasture fencing
		e	WR - Construct 2 mi. pasture fencing
		f	IR - Noxious weed treatment on 150 acres - Seeding on 150 acres - Construct 3 mi. pasture fencing
8	<b>Increase late-season stream flows to maintain lower stream temperatures and improve aquatic function</b> <b>\$110K</b>	a	MGR - Improve water conveyance efficiency for 2 ditches on the Grande Ronde River and tribs.
		b	CC - Improve water conveyance efficiency for 2 ditches on mainstem Catherine Creek - Improve water application efficiency on 800 acres irrigated from Catherine and Little Creeks -Acquire instream water rights
		c	WR - Improve water conveyance efficiency on 1 ditch on mainstem Wallowa River and tribs. -Improve water application efficiency on 200 acres irrigated from the same streams
9	<b>Improve water quality (nutrients, pH, temp) for salmonid production and survival</b>	a	All Watersheds - tasks listed under Objectives 5, 6, 7, and 8 will also meet this objective.

**Objective schedules and costs**

Obj #	Start date mm/yyyy	End date mm/yyyy	Measurable biological objective(s)	Milestone	FY2000 Cost %
1	10/1999	12/2000			9%
2	10/1999	12/2000	100% passage of adults and juveniles at project sites. Open area above passage sites making several miles of stream		10%

<b>Obj #</b>	<b>Start date mm/yyyy</b>	<b>End date mm/yyyy</b>	<b>Measurable biological objective(s)</b>	<b>Milestone</b>	<b>FY2000 Cost %</b>
			available for anadromous salmonid use.		
3	10/1999	12/2000	Reduce mortality at project sites to zero for upstream and downstream migrants. Reduce migration delays.		9%
4	10/1999	12/2000	Increase the number of anadromous salmonids utilizing existing areas by improving quality and quantity of spawning and rearing habitat.		10%
5	10/1999	12/2000	Increase the numbers and quality of smolts as well as improve spawning and egg incubation survival.		24%
6	10/1999	12/2000	Increase biological productivity and subsequent smolt numbers and quality.		11%
7	10/1999	12/2000	same as # 6		15%
8	10/1999	12/2000	Increase juvenile survival by increasing rearing area and quality through higher in-stream flows during critical times.		12%
9	10/1999	12/2000	-		-
				<b>Total</b>	100%

**Schedule constraints**

Landowner inability to cost-share work, technical support availability, ESA consultation delays.

**Completion date**

Continuing project. (Individual habitat restoration projects are scheduled for completion during the 2000 field season.

## Section 5. Budget

<b>FY99 project budget (BPA obligated):</b>	Project # 9202601 \$266K Project # 94020700 \$850K
---	---

### *FY2000 budget by line item*

Item	Note	% of total	FY2000 (\$)
Personnel		5 %	\$49,000
Fringe benefits		2 %	\$17,000
Supplies, materials, non-expendable property		1%	\$7,500
Operations & maintenance			
Capital acquisitions or improvements (e.g. land, buildings, major equip.)			
NEPA costs	(NEPA, ESA consultation, etc. incl. w/personnel)		
Construction-related support			
PIT tags	# of tags:		
Travel		1%	\$6,500
Indirect costs			
Subcontractor	On-the-ground habitat restoration projects implemented with: Private Landowners CTUIR USDA Forest Service Union & Wallowa SWCD's Union County PWD Wallowa County PWD Technical Consultant	91%	\$850,000
Other			
<b>TOTAL BPA REQUESTED BUDGET</b>			<b>\$930,000</b>



**Cost sharing**

Organization	Item or service provided	% total project cost (incl. BPA)	Amount (\$)
Private Landowners	In-kind labor, materials, cash	13 %	\$280,000
CTUIR	Technical support, in-kind labor, materials	1.5 %	\$30,000
NRCS	Technical support	3 %	\$60,000
USDA Forest Service	Technical support, in-kind labor/personnel, materials	13 %	\$275,000
ODFW	Technical support, in-kind labor/personnel, materials	4 %	\$85,000
Bureau of Reclamation	Technical support	4 %	\$90,000
Union & Wallowa SWCD's	Technical support	1 %	\$20,000
Oregon DOT	Technical support, in-kind labor/personnel	2.5 %	\$50,000
Oregon Dept of Forestry	Technical support, in-kind labor/personnel	1 %	\$24,000
Union County PWD	Technical support, in-kind labor/personnel, materials	5 %	\$110,000
Wallowa County PWD	Technical support, in-kind labor/personnel, materials	4 %	\$90,000
Eastern Oregon University	Contract Administration	2 %	\$36,000
BPA	Funding	46 %	\$930,000
<b>Total project cost (including BPA portion)</b>			<b>\$2,080,000</b>

**Outyear costs**

	FY2001	FY02	FY03	FY04
<b>Total budget</b>	\$1,095,000	\$1,095,000	\$1,095,000	\$1,095,000

**Section 6. References**

Watershed?	Reference
X	Huntington, C.W. 1993. Stream and Riparian Conditions in the Grande Ronde Basin. Clearwater BioStudies, Incorporated. Canby, OR. Summary, analysis and assessment of all available stream inventory data within the Grande Ronde Basin.
X	Duncan, D. and G. Cawthon. May 1994. Grande Ronde Model Watershed Program Operations/Action Plan. PNW Region, Bureau of Reclamation, Boise, ID
X	Citizens of Wallowa County, August 1993. Wallowa County-Nez Perce Tribe Salmon Habitat Recovery Plan. Wallowa County Court, Enterprise, OR
X	Mobrand, L. and L. Lestelle. January 1997. Application of the Ecosystem Diagnosis and Treatment Method to the Grande Ronde Model Watershed Project. BPA #94AM33243. Mobrand Biometrics, Vashon Island, WA.
X	Diebel, K. 1997. Grande Ronde Basin Water Quality Monitoring, 1997. Union Soil & Water Conservation District; Grande Ronde Model Watershed Program; Wallowa Soil & Water Conservation District. Annual summary and report on the basin-wide monitoring program.
	National Marine Fisheries Service Snake River Salmon Recovery Plan (NMFS 1995)
	Grande Ronde Model Watershed Program - Report of Contract Compliance - BPA Agreement No. DE-AI79-92BP66658 (Annual Reports 1992-1998)

---

## **PART II - NARRATIVE**

### **Section 7. Abstract**

#### **Grande Ronde Habitat Restoration and Program Coordination**

This proposal requests continued funding for the comprehensive Grande Ronde Model Watershed Program (GRMWP). The Grande Ronde Basin was selected in 1992 by the Northwest Power Planning Council as the model watershed for Oregon. The GRMWP brings relevant interests together to address the needs of declining fish populations of the Grande Ronde Basin. The project focuses on habitat restoration, which is a component of the overall effort to rebuild anadromous fish populations in the Grande Ronde Basin as well as in the Columbia River Basin.

The project includes habitat restoration and program coordination. Habitat restoration addresses habitat parameters and management activities identified in the 1994 Columbia River Basin Fish & Wildlife Program, Section 7.6D. The GRMWP assessment and planning documents guide the program coordination and habitat restoration activities.

**The GRMWP strategy is to restore critical salmonid habitats in the Grande Ronde Basin.** Specific measurable outcomes include:

- Increased riparian zone and floodplain function
- Restoration of in-channel and riparian habitats for fish and wildlife
- Improved spawning and rearing habitat for ESA listed fish
- Creation of a basin-wide water quality monitoring program
- Increased landowner and public involvement in habitat restoration activities

The GRMWP Technical Committee has developed a coordinated monitoring strategy for the Grande Ronde basin. The objectives are to: determine baseline water quality conditions, assess cumulative effects of restoration work, and provide credible data to guide program direction.

### **Section 8. Project description**

#### **a. Technical and/or scientific background**

This project is specific to the Grande Ronde River Basin, which covers 5,265 square miles in Union and Wallowa counties in the Blue Mountain Region of northeastern Oregon. With the imminent listing of spring chinook salmon under the Endangered Species Act, in 1992 the Union County Commission and Wallowa County Court determined that a grass-roots, locally-based effort working to coordinate existing local, state and federal programs could effectively maintain, enhance, and restore the watershed. The Northwest Power Planning Council selected the Grande Ronde Basin as the model watershed for Oregon; the Governor's office certified the program. BPA provides funding for administrative and restoration projects, the Bureau of Reclamation and the GWEB provide technical support, and administration and project funding. Additional project funding is cost-shared by participating agencies and landowners. Eastern Oregon University provides administrative services. The program is an initiative of Blue Mountains Natural Resources Institute, an entity of the U.S. Forest Service Pacific Northwest Research Station.

In May 1992, spring chinook salmon in the Grande Ronde Basin were listed as threatened under the Endangered Species Act. In October 1997, steelhead were added, and in June 1998 bull trout were listed. The GRMWP coordinates local habitat restoration with regional actions as outlined by the Northwest Power Planning Council in their 1994 Columbia River Basin Fish & Wildlife Program (Sections 7.0B.1, 7.6, 7.6C, 7.6D, 7.7b.2-3, 7.8A.4-5), and Endangered Species Act requirements as described in the National Marine Fisheries Service Snake River Salmon Recovery Plan (NMFS 1995, tasks 1.1.b, 1.4.d, 1.4.b, 1.5.b, and 1.6.b).

The GRMWP Board of Directors represent a diverse group of interests with the common vision of a healthy watershed. Membership includes stock growers, farmers, native American tribes, environmental groups, natural resource management agencies, elected officials, and representatives from the community, forestry, and fish and wildlife interests. The Board provides policy development, oversight, guidance and direction to the program. They make recommendations on long-term plans and approve programs of work.

A Technical Committee of biologists, hydrologists, a soil scientist, forester, and other resource specialists advise and provide recommendations to the Board for planning and technical issues. They review and evaluate project proposals for technical merit and adequacy. Local agency staffs, the tribes, and private individuals play a crucial role in the model watershed process by serving on this committee. Project proposals review has become a main function of the committee which promotes accomplishment of technically sound restoration activities.

Habitat degradation within the Grande Ronde Basin has been well documented in reports commissioned by the GRMWP, graduate theses, and a multitude of other reports and publications. Technical reports commissioned by the GRMWP include the *GRMWP Operations/Action Plan* (Duncan and Cawthon, 1994); *Stream and Riparian Conditions in the Grande Ronde Basin* (Huntington, 1993); and the *Application of the Ecosystem Diagnosis and Treatment Method to the Grande Ronde Model Watershed Project* (Moberg and Lestelle, 1997). Watershed Action Plans have been completed or are in progress to address individual watersheds. A thorough review of these and other documents to assess environmental conditions and establish habitat restoration priorities were completed before beginning project implementation.

The GRMWP projects focus on habitat restoration, which is a component of the program to rebuild anadromous fish populations in the Grande Ronde Basin as well as in the Columbia River Basin. Habitat deficiencies in the Grande Ronde Basin are addressed by taking a comprehensive ridgetop-to-ridgetop restoration approach. This proposal includes projects targeting specific habitat problems on critical stream reaches. Projects will make incremental improvements toward habitat restoration and enhancement, which are critical links to improving anadromous fish populations in the Columbia River Basin.

The restoration projects will address habitat parameters and management activities identified in the 1994 Columbia River Basin Fish and Wildlife Program, Section 7.6D.

Habitat assessments prepared for the Grande Ronde Basin (Section 6. References) describe habitat conditions relative to the needs of spring chinook salmon. Spring chinook salmon is the “diagnostic species” for the basin (Moberg, L. and L. Lestelle. January 1997.) Spring chinook salmon occupy the same geographic areas and habitats as steelhead and bull trout (also ESA listed), and have similar habitat requirements. Therefore the following habitat concerns identified for spring chinook salmon are also concerns for steelhead and bull trout as well as resident salmonids.

### **Grande Ronde River System**

**Upper Grande Ronde River** (upstream of La Grande). Habitat for spring chinook is greatly reduced from historic levels for certain life stages. Survival conditions have changed due primarily to increased water temperature, increased sediment load, loss in habitat diversity, changes in flow patterns, channel and bank destabilization, and alteration of the riparian zone (Moberg and Lestelle, 1997; Duncan and Cawthon, 1994; Huntington, 1993).

**Catherine Creek** Spring chinook habitat losses are due to land development, channel straightening, removal of large organic structure, and de-watering. Productivity has declined sharply. (Moberg and Lestelle, 1997; Duncan and Cawthon, 1994; Huntington, 1993).

**Limiting Factors:** low summer flows, high summer temperatures, streambed sedimentation, reduced habitat complexity, adult passage.

**Middle Grande Ronde River** (La Grande to Elgin, Grande Ronde Valley). Habitat losses for spring chinook have occurred throughout this reach for the pre-spawning, summer rearing and overwintering stages. In most years, migration and holding of adult salmon is not possible after early July because of low flows and high water temperatures. Spawning and egg incubation are precluded by high water temperatures. Winter rearing habitat for juvenile salmon is limited as a result of streambed sedimentation and severely reduced habitat complexity. Additional factors limiting salmon production include poor riparian zone condition and poor water quality including high water temperatures, high pH and elevated nutrient levels (Mobrand and Lestelle, 1997; Duncan and Cawthon, 1994; Huntington, 1993).

**Limiting Factors:** low summer flows, high summer temperatures, streambed sedimentation, reduced habitat complexity, high pH and nutrient levels, poor condition of the riparian zone.

**Lower Grande Ronde River** (Grande Ronde River-mouth to Elgin). Changes in quantity of key habitat downstream of the Grande Ronde valley have been comparatively minor. Lack of riparian vegetation and shade, and low flows, contribute to high water temperatures. Excess fine sediment, eroding streambanks, and lack of woody debris are also factors. (Mobrand and Lestelle, 1997; Duncan and Cawthon, 1994; Huntington, 1993; Citizens of Wallowa, 1993).

**Limiting Factors:** low summer flows, high summer temperatures, streambed sedimentation, lack of woody debris.

**Joseph Creek** Historically, the Joseph Creek subbasin contained little key habitat for spring chinook salmon. However, Joseph Creek contains key habitat for steelhead. There are approximately 225 miles of anadromous fish habitat in the Joseph Creek subbasin. This habitat accounts for about 8 percent of current steelhead capacity in the Grande Ronde Basin, and supports a steelhead population managed for wild production. Habitat conditions have deteriorated because of changes to channel stability, flow patterns, sediment load, habitat diversity, and predation levels (Mobrand and Lestelle, 1997; Duncan and Cawthon, 1994; Huntington, 1993; Citizens of Wallowa, 1993).

**Limiting Factors:** low summer flows, high summer temperatures, streambed sedimentation, reduced habitat complexity, predation.

### **Wallowa River System**

**Wallowa River** The quantity of key habitat for spring chinook throughout most of the mainstem Wallowa River has been substantially reduced. However, habitat in the lower ten miles (downstream of Minam River) is relatively unchanged. Conditions for survival during egg incubation, fry colonization, and early summer rearing are poor in the upstream reaches, and tend to improve downstream. Elevated water temperatures, sediment load, run-off from agricultural land, flow reductions, and reduced habitat diversity also contribute (Mobrand and Lestelle, 1997; Duncan and Cawthon, 1994; Huntington, 1993; Citizens of Wallowa, 1993).

**Limiting Factors:** low summer flows, high summer temperatures, sediment load, reduced habitat complexity, agricultural land run-off (nutrient levels).

**Lostine River** The changes in habitat for spring chinook in the Lostine River differ by life stage and stream reach. The largest quantity of key habitat occurred in the lower 15 miles of the river. The quantity of key habitat is virtually unchanged in the upper 10 miles; however, this section contains much less habitat compared to the downstream reach. The capability of the lower 15 miles of the river to support spring chinook production is substantially reduced for most life stages. Survival conditions in this section are poor due primarily to higher summer temperatures, alterations in flow regimes, and loss of habitat diversity (Mobrand and Lestelle, 1997; Duncan and Cawthon, 1994; Huntington, 1993; Citizens of Wallowa, 1993).

**Limiting Factors:** alterations in flow regimes, high summer temperatures, loss of habitat diversity.

**Bear Creek** Changes in the habitat for spring chinook in Bear Creek differ by life stage and stream reach. Historically, the largest quantities of key habitat occurred in the lower six miles of stream (excluding smolt stage). The capability of the lower six miles of Bear Creek to support spring chinook production (survival) is greatly reduced for most life stages. Survival conditions in this section are poor due primarily to low flows, loss of habitat diversity, increased water temperature, increased sediment load, feedlot run-off, and bank destabilization. Changes to survival conditions in the upper section of the creek are comparatively minor (Mobrand and Lestelle, 1997; Duncan and Cawthon, 1994; Huntington, 1993; Citizens of Wallowa, 1993).

**Limiting Factors:** low summer flows, high summer temperatures, sediment load (bank destabilization), loss of habitat diversity, nutrient levels(feedlot runoff).

**Imnaha River System** Changes in habitat for spring chinook in the Imnaha River differ by life stage and stream reach. The greatest reduction in key habitat has occurred through much of the mid-portion and upper river reach for the spawning and egg incubation stages. The capability for supporting spring chinook productivity is reduced mainly in the mid to lower reaches of the river for the pre-spawning, spawning, fry colonization, and summer rearing life stages. Survival conditions are poor because of elevated water temperatures and sediment load, and reduced habitat diversity (Mobrand and Lestelle, 1997; Duncan and Cawthon, 1994; Huntington, 1993).

**Limiting Factors:** elevated summer temperatures, sediment load, reduced habitat diversity.

#### **b. Rationale and significance to Regional Programs**

Multiple agencies and groups within the basin share partnerships with the GRMWP, and are critical to its success. Technical services and in-kind funding is provided to accomplish the objectives and tasks of the GRMWP.

Habitat improvement activities, proposed under this project, address the habitat parameters and management activities identified in the 1994 Columbia Basin Fish and Wildlife Program, Section 7.6D. Restoration and protection of critical salmonid habitat within the Grande Ronde Basin is a critical element affecting anadromous fish populations in the Columbia River Basin.

Habitat degradation resulting from human activities in the Grande Ronde Basin has been occurring for well over a hundred years. Reduced in-basin habitat productivity as well as other out-of-basin impacts have seriously reduced anadromous fish populations from historical levels. The impacts are cumulative and have had dramatic effects on the populations. Mobrand and Lestelle (1997) state that, "Life history pathways associated with spawning reaches in the upper Grande Ronde River show severe declines in potential salmon performance compared to historic levels. Restoration potential is significant for this subbasin.... groups of fish using these pathways appear to be at extremely high risk of extinction."

Protection and restoration of the headwater habitats are critical to the reestablishment of wild fish populations. Emphasis on headwater habitat restoration is a high priority for the GRMWP.

The proposed projects will leverage BPA funds to accomplish more restoration work than could be accomplished using BPA funds alone. Since 1994, for every BPA dollar allocated to the Grande Ronde Basin through the GRMWP, an additional \$1.62 has been cost-shared by private landowners, private corporations, or other government agencies (see table in Section 7.d). Funds contributed by other entities for projects developed under this proposal for FY2000 are expected to be similar.

#### **c. Relationships to other projects**

Other relevant BPA-funded projects (in addition to those listed in Section 3) include:

<u>Project #</u>	<u>Title</u>	<u>Sponsor</u>
9703400	Monitoring Fine Sediment Levels - Grande Ronde & John Day	CRITFC
9306600	Oregon Fish Screens Project	ODFW
9604400	Grande Ronde Basin Spring Chinook Captive Broodstock Program	ODFW/NPT
9607700	Meadow Creek Restoration	USFS
9608300	Grande Ronde Subbasin Watershed Restoration	CTUIR

The projects listed above have a direct relationship with this proposal because they address habitat or fish stock issues within the Grande Ronde Basin. This project addresses primarily habitat restoration. Projects involving fish stock improvements are dependent on habitat restoration. Additionally, any projects downstream of the Grande Ronde Basin intended to restore anadromous fish runs are dependent upon this project to maintain or improve fish production potential in the headwaters.

**d. Project history** (for on-going projects)

The Grande Ronde Model Watershed Program was created by the NPPC in 1992 and initially was funded under proposal # 9202601 "Grande Ronde Model Watershed Program - Project Planning/Support." In 1994 another proposal was submitted and approved specifically for habitat improvement projects, # 9402700 "Restore Salmonid Habitat in the Grande Ronde Model Watershed." The two projects have been annually submitted and approved through 1999. This year the two proposals have been combined into this one proposal "Grande Ronde Model Watershed Program # 9202601." This request is to fund both the administration of the program and the implementation of habitat restoration projects to fulfill the objectives of the NPPC's Strategy for Salmon Volume II in the Columbia Basin.

**Projects reports and documents include:**

- Assessment of Stream & Riparian Conditions in the Grande Ronde Basin, 1993
- Grande Ronde Model Watershed Program Operations-Action Plan, 1994
- Wallowa County-Nez Perce Tribe Salmon Recovery Plan, 1993
- Application of Ecosystem Diagnosis & Treatment Method to the Grande Ronde Model Watershed Project, 1997
- Grande Ronde Basin Water Quality Monitoring, 1997 & 1998

The BPA has been working with agencies in the Grande Ronde Basin for many years and with the GRMWP since 1992. From 1995 to 1998, 132 individual habitat restoration projects were implemented.

**Projects achievements 1994-1998:**

- 244 miles of fencing (riparian fencing including exclosure & cross fencing)
- 182 miles of road closures/obliteration
- 107 miles of road improvements to reduce sediment
- 107 miles of stream treated with in-stream work (includes 334 structures)
- 142 spring developments (for off-stream watering)
- 28 fish passage improvement projects
- 13 irrigation diversion improvements (fish passage)

Projects have addressed nearly every component of watershed health including water quality, water quantity, in-stream habitat complexity, riparian condition, streambank stability, and fish passage. While many of the benefits are

already evident, others will accrue over longer time periods. Projects addressing fish passage problems, sediment inputs, and flow deficiencies have demonstrated immediate benefits. The benefits of other projects addressing improvements in riparian vegetation, bank stability, and stream temperature will become more apparent over time.

**Funding from the BPA has been leveraged for a considerable amount of in-kind services, research grants, and project funding. The accomplishments and expenditures from 1995 to 1997 include:**

<u>Year</u>	<u># Projects</u>	<u>BPA \$ *</u>	<u>Cost Share \$</u>
1995	11	\$356,864	\$1,619,269
1996	42	\$762,107	\$1,001,184
1997	41	\$1,146,875	\$1,085,106
1998	38	<u>\$653,083</u>	<u>\$1,011,186</u>
Totals		\$2,918,929	\$4,716,745

\* **Every BPA dollar is cost-shared with an additional \$1.62 of non-BPA funds.**

**Projects were accomplished in cooperation with the following entities:**

Union SWCD*	Wallowa SWCD*	U.S. Forest Service
Oregon Dept. of Transportation	Wallowa County PWD	Union County PWD
Boise Cascade Corp.	City of Union	Union County
Oregon Dept. of Fish & Wildlife	Oregon State Parks	CTUIR
Oregon Dept. of Forestry	Bureau of Reclamation	Nature Conservancy
Natural Resource Conservation Service		

\*Projects implemented on private lands with 41 individual landowners.

Also, over 90 additional habitat restoration projects were implemented through the GRMWP in 1994 and 1995 using Oregon Watershed Health Program funds.

**Project implementation and effectiveness monitoring has been incorporated into all projects.** Elements of individual project monitoring include a project completion final report, photo-point documentation, and an annual monitoring report for five years. This monitoring is a requirement for having a habitat restoration project approved by the GRMWP.

**The GRMWP has implemented a basin-wide water quality monitoring program in cooperation with the Union and Wallowa SWCD's.** The program collects, summarizes and prepares an annual report on all known monitoring being done in the basin. Data gaps have been identified and monitoring sites established to complete the data collection. This program will provide the data to assess long-term habitat changes as a result of habitat restoration projects.

Knowledge gained over the next several years through project and basin-wide monitoring will facilitate adaptive management. Past project development combined state-of-the-art techniques with landowner management objectives. Current and future project development will use monitoring information to implement those practices that provide the most cost effective and beneficial habitat restoration.

Habitat restoration projects of the GRMWP have produced other results that are crucial to future restoration efforts in the basin. The visible on-the-ground successes of the 132 previous projects have demonstrated to landowners, residents and others that habitat restoration is working and can be done along with other resource uses. Many cooperative relationships with landowners have been developed which has created the potential for future projects. Successful projects and satisfied landowners have demonstrated good watershed stewardship and will provide the incentive for other landowners to get involved.

#### **e. Proposal objectives**

This proposal requests FY2000 funding to continue the comprehensive watershed restoration program for the Grande Ronde Basin. Maintaining and improving the productivity of salmon, steelhead and bull trout habitat is a complex task and requires coordination of all activities that occur in a subbasin. Effective habitat restoration projects can be implemented only after stream-specific conditions and habitat restoration objectives are identified.

This request includes funding for approximately 40 salmonid habitat restoration projects. A specific proposal will be prepared for each restoration project that identifies the objectives, tasks, benefits, and budget. This will be submitted to BPA as the statement of work for the contract between BPA and the entity implementing the project.

The proposed projects incorporate the habitat parameters and management activities identified in the 1994 Columbia Basin Fish and Wildlife Program, Section 7.6D. The projects specifically address the aquatic habitat and other habitat deficiencies identified in technical material and assessments prepared for the Grande Ronde Basin (Section d. history). The federal listing of fish stocks in the Grande Ronde Basin is a testimonial to the condition of the salmonid habitat.

**The specific objectives include:**

- Objective 1. Coordinate program administration and habitat restoration projects
- Objective 2. Improve passage at road crossings for adult/juvenile salmonids
- Objective 3. Improve passage at irrigation diversions for adult/juvenile salmonids
- Objective 4. Improve in-stream habitat diversity to restore and enhance salmonid spawning and rearing
- Objective 5. Enhance riparian condition (vegetation, function, etc.) to restore and improve hydraulic and sediment regimes, and floodplain/stream channel function
- Objective 6. Improve streambank stability to reduce sedimentation
- Objective 7. Improve upland watershed conditions to reduce sediment input to streamcourses
- Objective 8. Increase late-season stream flows to lower stream temperatures and improve aquatic function
- Objective 9. Improve water quality for salmonid production and survival

**Examples of expected outcomes include:**

- Proposals to fund/implement habitat restoration projects/leveraging funds.
- The removal of passage barriers caused by road crossings and irrigation diversion structures will restore salmonid access to spawning and rearing habitat and increase productivity.
- Adding woody debris will increase channel complexity needed for healthy stream habitat and improve salmonid survival and productivity.
- Adding off-channel rearing habitat will improve salmonid survival and increase productivity.
- Reducing sediment input, increasing stream flows, and weed control/seeding will improve soil and hydrologic functions, water quality, and the overall aquatic function, which will improve salmonid survival and production.

**The GRMWP will maintain an individual project file for each of the projects in this proposal.** The project file will contain final project completion reports, photo-point pictures, annual monitoring reports as well as any other information pertinent to assessing the success of the project. The GRMWP also maintains a database, referenced to GIS map layers, which contains data on all watershed restoration projects implemented through the GRMWP since 1994, and on restoration projects completed through natural resource management agencies since 1985. Reports and maps are regularly produced and distributed basin-wide. Some of these include:

- 1985-1998 Restoration Project Listing and Summary of Work
- Accomplishment Reports submitted to BPA
- Project and Work Summaries categorized by county, agency, work type, fund source, etc.
- Project Listing for the NPPC

**f. Methods**

The proposed projects will restore and improve aquatic and riparian habitats and watershed functions essential to the survival and production of wild spring chinook salmon and steelhead in the Grande Ronde Basin. The tasks associated with the specific objectives of the GRMWP program and habitat restoration projects include:

**Objective 1—Coordinate program administration and habitat restoration projects.**



- Task a:** Facilitate inter-agency coordination of program activities & projects with natural resource management agencies.
- Task b:** Coordinate planning, prioritization, and implementation of restoration projects.
- Task c:** Provide technical support for projects
- Task d:** Monitor cumulative effects
- Task e:** Serve as a clearing house for restoration information dissemination
- Task f:** Provide educational outreach for watershed restoration

## **Objective 2 -- Improve passage at road crossings for adult/juvenile salmonids**

- Task a:** Upper Grande Ronde River – replace/modify 3 culverts
- Task b:** Middle Grande Ronde River -- reconstruct 1 bridge
- Task c:** Catherine Creek -- modify 2 culvert/road crossings
- Task d:** Wallowa River -- replace 1 road crossing

Fish passage problems at road crossings are widespread throughout the watershed and are well documented. Adult and juvenile passage, at improperly constructed crossings, has been blocked or partially restricted, seriously limiting anadromous fish productivity of some watersheds. Structural solutions (bridges or bottomless arches), which re-establish natural or near-natural channel bottoms are the preferred method of permanently providing passage at all flow levels. Planning and implementation of passage improvement projects is closely coordinated with agency fisheries biologists. Fish passage and engineering elements are balanced to produce long-term function and utility of the installations.

## **Objective 3 -- Improve passage at irrigation diversions for adult/juvenile salmonids**

- Task a:** Middle Grande Ronde River -- modify 1 irrigation diversion structure on the Grande Ronde River; modify 2 diversion structures tributaries
- Task b:** Catherine Creek -- replace 1 push-up gravel irrigation diversion

Adult anadromous fish passage at irrigation diversions was identified early on in many of the GRMWP planning documents as a critical problem in some of our major streams. Many of the problem sites have been corrected, but several remain. Modification of irrigation diversions are structural solutions and are quite permanent. All replacement diversion structures have been and will continue to be modified or replaced with NMFS approved structures. Other non-structural methods to address passage problems are directed toward keeping more flow in-stream (Objective 8) and have included irrigation efficiency projects which result in reduced irrigation water withdrawal.

## **Objective 4 -- Improve in-stream habitat diversity for salmonid spawning and rearing**

- Task a:** Upper Grande Ronde River – add large woody debris to Grande Ronde river and tributaries (2 mi.); rock and log structure placements (2 mi.); install 5 grade control structures
- Task b:** Catherine Creek – add large woody debris to 1 mi. of tributaries; construct off-channel rearing habitat (.5 mi.)
- Task c:** Wallowa River -- install 5 grade control structures; reconstruct channel meanders (.5 mi.)

Management activities dating back to the turn of the century have reduced in-stream habitat diversity and have removed habitat elements that promote stable functioning aquatic systems. Most notable in the Grande Ronde Basin are the construction of railroad grades and roads in riparian zones, splash dam log transport, rock and large wood removal, grazing and logging. Tasks identified in Objective 5 are the preferred non-structural methods of improving in-stream habitat diversity. However, structural methods are sometimes needed to assist natural restorative processes by providing channel stability and by reintroducing the log and rock components which were once present in the systems and which will not return naturally within reasonable time-frames.

These tasks will initiate the restoration process by promoting channel stability and sediment storage which will then allow natural processes to complete the healing over time.

**Objective 5 --Enhance riparian condition (vegetation, function, etc) to restore/improve natural hydraulic and sediment regimes, and floodplain and stream channel function**

**Task a:** Upper Grande Ronde River -- construct 1.5 mi. of riparian fencing; restore 35 ac. of wet meadows, develop 7 off-stream water sources; close 2 mi. of sediment producing roads; plant 4,000 feet of streambank; noxious weed control on 75 acres

**Task b:** Middle Grande Ronde River -- construct 2 mi. of riparian fencing; develop 5 off-stream water sources; restore 15 ac. of wet meadows

**Task c:** Lower Grande Ronde River -- construct 2mi. of riparian fencing; develop 6off-stream water sources

**Task d:** Catherine Creek -- construct 5 mi. of riparian fencing; develop 6 off-stream water sources; restore 25 ac. of wet meadows; plant 2500 feet of streambank

**Task e:** Joseph Creek -- construct 3.5 mi. of fencing; develop 6 off-stream water sources

**Task f:** Wallowa River -- construct 2 mi. of riparian fencing; plant 1,000 feet of streambank; restore 30 ac. of wet meadows

Actions implemented to meet this objective are primarily non-structural in nature and emphasize removal or management of casual agents such as riparian area roads, riparian livestock grazing, and noxious weeds. Natural restoration is allowed to provide long-term improvements in the absence of the causes of the habitat degradation. Activities are designed to have minimal effects on non-target species, e.g. fences are constructed using ODFW fence specifications.

**Objective 6 -- Improve streambank stability to reduce sedimentation**

**Task a:** Upper Grande Ronde River -- construct 15 barb/log revetment stabilization structures; construct 5 grade control vortex weirs; Revegetate 8,000 feet of streambank; construct 1.5 mi. of riparian fencing; develop 6 off-stream water sources

**Task b:** Middle Grande Ronde River -- Revegetate 6,000 feet of streambank; construct 1.5 mi. of riparian fencing; develop 5 off-stream water sources

**Task c:** Catherine Creek -- Revegetate .5 mi. of streambank; construct 1.5 mi. of riparian fencing

**Task d:** Wallowa River -- construct 10 barb/log revetment stabilization structures

Tasks for this objective are a combination of non-structural and structural methods. Structural methods are reserved for use where bank stability objectives would likely not be met within reasonable time frames due to channel instability caused by past modifications which cannot feasibly be reversed without structural work. Vegetative components are incorporated into all projects to provide long-term benefits.

**Objective 7 -- Improve upland watershed conditions to reduce sediment input**

**Task a:** Upper Grande Ronde River -- noxious weed treatment on 100 acres; seeding on 100 acres

**Task b:** Middle Grande Ronde river -- noxious weed treatment on 250 acres; seeding on 250 acres; 1 mi. pasture fencing

**Task c:** LGR – Noxious weed treatment 300 ac.; seeding 300 ac.

**Task d:** Catherine Creek -- 2 mi. pasture fencing

**Task e:** Wallowa River -- 2 mi. pasture fencing

**Task f:** Imnaha River -- noxious weed treatment on 150 acres; seeding on 150 acres; 3 mi. pasture fencing

Actions proposed under this objective recognize a need to manage watersheds with a ridgetop-to-ridgetop approach, realizing watershed problems in the uplands manifest themselves in the riparian areas. Projects employ an integrated approach using a combination of non-structural methods including noxious weed control, vegetation seeding, and fire reintroduction to improve watershed vegetative condition. Actions are preventative in nature as well as restorative. Noxious weeds and declining forest health have rapidly become recognized as major threats to long-term watershed health in the Grande Ronde Basin. These actions are taking a proactive approach by working to prevent additional long-term watershed impacts.

**Objective 8 --Increase late-season stream flows to maintain lower stream temperatures and improve aquatic function**

**Task a:** Middle Grande Ronde River – improve water conveyance efficiency for 2 ditches

**Task b:** Catherine Creek -- improve water conveyance efficiency for 2 ditches on Catherine Creek; improve water application efficiency on 800 acres irrigated from Catherine and Little Creeks, acquire instream water rights

**Task c:** Wallowa River -- improve water conveyance efficiency on 1 ditches; improve water application efficiency on 200 acres

Tasks in Objectives 4, 5, and 7 also address this objective through a variety of non-structural and structural methods and deal with the problem on a long-term approach. However, due to the critical nature of the flow/temperature problems and the severely depressed anadromous fish populations in the Grande Ronde Basin, actions that enhance stream flow immediately are also required. Immediate temperature/flow improvements can be evident when irrigation efficiencies are improved, leaving more water in-stream to benefit aquatics. Reducing transportation losses by lining or piping ditches, and improving application efficiencies, e.g. flood to sprinkle conversion, are recognized methods that have immediate as well as long-term benefits.

**Objective 9 --Improve water quality for salmonid production and survival**

**Task a:** All Watersheds -- tasks listed under Objectives 5, 6, 7 and 8 will meet this objective

**Project Development** - The GRMWP staff, Technical Committee and Board of Directors annually pursue projects through a variety of outreach programs with the SWCD's, landowner groups, government agencies and individual landowners. Projects target focus watersheds and limiting factors listed in Section 7.a. Individual project proposals are prepared by project proponents with assistance from GRMWP staff. Proposal actions become the statement of work that is included in a contract between BPA and a subcontractor.

**Project Review** - Projects undergo a thorough internal review process by the GRMWP Technical Committee and Board of Directors to assure implementation of priority restoration projects. Technical Committee composition includes fisheries biologists, hydrologists and engineers, and representation by tribes and agriculture. Project review includes a screening and prioritization process that addresses biological, technical, economic and social merits of each project.

**Project Monitoring** - Each of the individual projects, implemented under the scope of this proposal, will have an individual monitoring plan. The plan is a required component of the project and will describe monitoring activities necessary to assess project implementation and habitat improvements. A final project completion report will be prepared for each project and submitted to the GRMWP. An annual status report including monitoring results will be completed and submitted to the GRMWP for a minimum of five years.

**Operation and Maintenance** -- Operation and maintenance (O&M) of GRMWP restoration projects is the responsibility of project cooperators, usually landowners or resource management agencies. The O&M activities include maintenance of improvements, annual reporting, monitoring, and operation as specified in individual project proposals (statement of work).

**Risk and Uncertainty** -- There are many uncertainties with habitat restoration work in the Grande Ronde Basin which could affect success of habitat restoration efforts. Biological systems are exceedingly complex and often do not respond in predictable ways due to the multitudes of variables in natural systems. Climatological events are not predictable and could nullify or negate some actions. Rain-on-snow events, ice flows and drought are examples of such events. The GRMWP minimizes these risks through comprehensive project planning and design, followed by thorough technical review. Coordinated project development also assures minimal risk of negative impacts to non-target species.

**g. Facilities and equipment**

Office space must be acquired on an annual contract. The program currently has sufficient equipment to complete all tasks outlined in this proposal. Much of the office furniture has been acquired from government surplus lists. Unix

Sunstation & some PC's are on loan from Oregon Department of Agriculture and Oregon Water Resources Department. Telephone lines and a vehicle are available through partnership with U.S. Forest Service.

The GRMWP restoration projects do not include the use of large facilities or the purchase of high cost equipment. However, equipment owned by project cooperators such as computers, vehicles, survey equipment and construction equipment is often used in project implementation. Some of the equipment is included in the cooperator cost-share for the project. When equipment not available to cooperators (heavy construction equipment) is needed, it may be subcontracted and costs requested in project proposals.

#### **h. Budget**

This proposal requests funding for:

- **GRMWP administration, planning and project support**  
\$70,000
- **GRMWP habitat restoration projects (40 projects)**  
\$850.000  
\$930,000

The administration funds are for personnel wages and benefits, office supplies, and travel. The funds requested this year are reduced from an annual average request of about \$260,000 due to savings and carryover from the previous two years. Savings have accrued due to additional funding acquired from the Bureau of Reclamation and GWEB and reduced administrative expenditures.

Project implementation funding is requested for approximately 40 individual restoration projects. These dollars are for **on-the-ground** work and may include materials, labor or services to accomplish specific work activities. Projects are cost-shared with participating agencies and landowners to get maximum benefit from BPA expenditures. Over the past four years, every dollar of BPA funding has garnered an additional \$1.62 from non-BPA sources.

## **Section 9. Key personnel**

### **THOMAS L. MACY**

Executive Director

#### Duties

##### Program Leadership

- Serves as program primary contact with the public
- Coordinates with Board of Directors and local representatives
- Coordinates with outside organizations and agencies BPA, ODFW, BOR, NMFS, Tribes, local government, and environmental groups
- Supervises internal operations
- Facilitates board meetings

##### Habitat Restoration Planning/Project Development

- Soliciting and evaluation of projects
- Monitors all basin activities
- Provides project technical support
- Reviews Biological Assessments and other project documents
- Coordinate and review program direction
- Prepares and reviews projects proposals

##### Public Information

- Plans and leads public information meetings
- Prepares newsletters and public information releases
- Prepares and presents program information for the public, cooperators, and agencies

#### Program Participation

- Plans and directs program activities
- Attends board meetings, presents program information and facilitates information distribution
- Provides assistance to the Board of Directors
- Prepares and presents funding proposals from various sources
- Facilitates agency interaction
- Implements approved plans

#### Experience:

New Executive Director Grande Ronde Model Watershed- Dec. 1998

Consultant: 1994-1998, Owner Quality Aquatics, Fisheries and Land Management for Tribes, US Government and Mexican Government

US Forest Service- Nov.1989- March 1994, Zone Fisheries Biologist Hood River and Barlow Districts. Lead fisheries program for two districts. Responsible for watershed restoration and water quality protection. Supervised projects including stream restoration, water quality protection and monitoring, radio telemetry, stream surveys, ski resort development, road building, and diversions. Application of knowledge of hydrology, geomorphology, public relations and salmonid fishes. Applied knowledge of ESA, NEPA, intra and inter-agency coordination, budget negotiation and administration, supervision and contracting officer representation.

Oregon Department of Fish and Wildlife April 1989-Nov. 1989, Worked on the Deschutes River Project.

U.S. Fish and Wildlife Service, July 1980-Nov. 1989, Lead staff biologist for the following projects; Remote rearing and release of Upriver Bright Fall Chinook, supplementation evaluation, alternative artificial rearing and release methods for salmonids, carrying capacity study on Yakima River system, renovation of abandon hatchery, egg survival in redds with fluctuating water levels, and White Sturgeon Research. Administrative experience included writing progress and final project reports, annual office reports, briefs for administrators and attorneys, soliciting negotiating and administering budgets, hiring and supervision. Writing and using ESA, NEPA and policy documents. Evaluating cost effectiveness, permitting and using statistical comparisons.

National Marine Fisheries Service, May 1980-June 1980 and April to July 1978, Aged several species of fish using scales, otolith and bone samples. Worked on McNary Dam bypass facility, primarily quality control.

US Fish and Wildlife Service, June1977-Dec.1979, Intensive study on Columbia River Backwaters. Emphasis on species inventory and water quality. Commercial catch and biological samples from Columbia River Fisheries. Wrote progress and final reports for BPA and USFWS.

University of Idaho, July1978-Dec 1979, Salmonid stomach analysis and radio telemetry projects.

ODFW, March 1978-June 1978, Gathered and evaluated juvenile salmonid bypass information on The Dalles Dam.

US Bureau of Reclamation; Oct. 1976 to March 1977, Wrote the report too evaluate the effects of the drought flows of 1976 on water quality in the Sacramento-SanJoaquin Estuary.

#### Education

- University of California at Davis: BA Zoology 1975
- Post Graduate Work: University of Idaho 1978, Fisheries

### **LYLE A. KUCHENBECKER**

Planner

#### Duties

##### Habitat Restoration Planning/Project Development

- Design, process and collect information to conduct habitat restoration planning
- Identify projects, prepare proposals, facilitate review and approval

Coordinate basin-wide monitoring activities  
Prepare project Biological Assessments and other documentation

#### Technical Committee

Provides support to Technical Committee  
Prepares program reports and documents, materials and meeting notes  
Implements directives of the Technical Committee  
Develops & acquires information for long-term project funding

#### Public Information

Participates in public information meetings  
Prepares materials for presentation and presents materials  
Prepares program support materials

#### Program Participation

Plans and organizes information for program activities  
Attends Board meetings and interacts appropriately  
Provides assistance to the Board as requested

#### Experience

U.S. Forest Service - Grande Ronde Model Watershed Program - February 1994 to present  
Detail to the GRMWP - See above duties.

U.S. Forest Service - La Grande Ranger District, Wallowa-Whitman National Forest, NEPA Planner - September 1992 - February 1994  
Ranger District Planning Staff  
Responsible for all NEPA planning on the Ranger District

U.S. Forest Service - La Grande Ranger District, Wallowa-Whitman National Forest, INFORMS Project Leader - October 1990 - September 1992.  
Special Demo project to test the feasibility of incorporating state-of-the-art GIS techniques into NEPA planning and analysis.

U.S. Forest Service - La Grande Ranger District, Wallowa-Whitman National Forest, District Silviculturist - October 1985 - October 1990  
Administration of the District Silviculture Department which was responsible for all District silvicultural prescriptions, planting thinning and tree improvement programs.  
U.S. Forest Service - Union Ranger District, Wallowa-Whitman National Forest, District Silviculturist - July 1980 - October 1985  
Duties same as above.

U.S. Forest Service - Dale Ranger District, Umatilla National Forest, August 1975 - July 1980

U.S. Forest Service - Southern Forest & Range Experiment Station, New Orleans, La., April 1973 - August 1975.

#### Special Qualifications

U.S. Forest Service - Region 6 Certified Silviculturist, 1981, 1985

#### Education

B.S. Forest Management/Natural Resource Management, University of Wisconsin, Stevens Point 1972  
U.S. Forest Service - Silvicultural Institute, 1980

## **Section 10. Information/technology transfer**

GRMWP staff give many presentations annually within and outside of the basin to a variety of audiences at conferences, workshops and symposiums. The GRMWP provides a forum for discussion of watershed issues and a place for

constituencies to listen and understand each other's interests and perspectives. GRMWP staff make preparations for and facilitate landowner meetings, tours, presentations, displays at county fairs, etc.; organize and coordinate educational seminars and activities for stakeholders; and publish newsletters and articles in local newspapers.

Technical information is often distributed informally through the group or one-on-one discussions with others doing similar work. This may occur through inquiries or organized field trips.

A project file is maintained for each restoration project which includes an accomplishment report and all implementation and effectiveness monitoring done for the project. The GRMWP is building a sizable catalog of photo documentation (pre, during and post activity) and project data.

Well over 220 habitat restoration projects have been implemented throughout the GRMWP since 1994. Techniques have included almost every conceivable practice used in habitat restoration work. Most of the methods are tried and proven, some are not. Due to the intensity of activities in recent years; the Grande Ronde basin has functioned like a very large outdoor laboratory. A comprehensive monitoring program has been implemented to determine project success and measure habitat and water quality improvements. The GRMWP has made provisions to incorporate the results of past and on-going projects into future projects.

**Congratulations!**